



Substitute for form 1449/PTO

Complete if Known

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet **1** of **1**

Application Number	<b>10/642,324</b>
Filing Date	<b>August 18, 2003</b>
First Named Inventor	<b>Takeshi NISHIUCHI</b>
Art Unit	<b>1742</b>
Examiner Name	<b>J. Sheehan</b>
Attorney Docket Number	<b>60303.32</b>

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
<i>JS</i>	<b>1</b>	<b>5,230,749</b>	<b>07/1993</b>	<b>FUJIMURA et al.</b>	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number-Kind Code <sup>4</sup> (if known)				
<i>JS</i>	<b>2</b>	<b>JP 03-264653</b>	<b>11/1991</b>	<b>Japan</b>		<b>X</b>
<i>JS</i>	<b>3</b>	<b>RU 2 136 069</b>	<b>08/1999</b>	<b>Russia</b>		

Examiner Signature	<i>John P. Sheehan</i>	Date Considered	<b>11-7-05</b>
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John T Sheehan

Date  
Considered

11-7-05

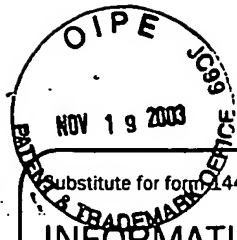
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PTO/SB/08A (04-03)

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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM -YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number-Kind Code <sup>5</sup> (if known)				
	1	EP 0 632 471	01/1995	EPO		X
	2	WO 00/52713	09/2000	PCT		
	3	JP 09-155513	06/1997	JAPAN	11-7-05	X

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		Country Code*Number-Kind Code *(if known)				
	17	HU 199904	01-1989	HUNGARY		
JL	18	JP 05-269549 (With English abstract and English machine translation)	10-1993	JAPAN		X
	19	JP 01-162702 (With English abstract)	06-1989	JAPAN		X
	20	JP 04-147604 (With English abstract)	05-1992	JAPAN		X
	21	JP 01-204401 (With English abstract)	08-1989	JAPAN		X
	22	JP 2002-302702 (With English abstract and machine translation)	10-2002	JAPAN		X
	23	JP 2000-348919 (With English abstract and machine translation)	12-2000	JAPAN		X
JL	24	JP 05-315174 (With English abstract and machine translation)	11-1993	JAPAN		X
	25	JP 08-124730 (With English abstract and machine translation)	05-1996	JAPAN		X
JL	26	JP 2002-64009 (With English abstract and machine translation)	02-2002	JAPAN		X
Examiner Signature	John P. Shick			Date Considered 11/7/05		

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<i>JS</i>	27	4,585,473	04-1986	Narasimhan et al.	
<i>JS</i>	28	4,597,938	09-1986	Matsuura et al.	
<i>JS</i>	29	4,664,724	05-1987	Mizoguchi et al.	
<i>JS</i>	30	4,994,109	02-1991	Willman et al.	
<i>JS</i>	31	5,225,004	07-1993	O'Handley et al.	
<i>JS</i>	32	5,240,513	08-1993	McCallum et al.	
<i>JS</i>	33	5,597,425	01-1997	Akioka et al.	
<i>JS</i>	34	6,386,269	05-2002	Kanekiyo et al.	
<i>JS</i>	35	6,471,786	10-2002	Shigemoto et al.	
<i>JS</i>	36	6,796,363	09-2004	Arai et al.	
<i>JS</i>	37	6,890,392	05-2005	Kanekiyo et al.	
<i>JS</i>	38	2001/0015239	08-2001	Kanekiyo	
<i>JS</i>	39	2003/0136468	07-2003	Kanekiyo et al.	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code*Number-Kind Code 5(if known)	Publication Date MM -YYYY	Country of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
<i>JS</i>	40	JP 02-247307 (with English abstract)	10-1990	JAPAN		
<i>JS</i>	41	JP 08-053710 (with English abstract and machine translation)	02-1996	JAPAN		X
<i>JS</i>	42	JP 11-8109 (with English abstract and machine translation)	01-1999	JAPAN		X
Examiner Signature	<i>John P Sheehan</i>			Date Considered	<i>11/7/05</i>	

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<i>JS</i>	43	JP 2000-234137 (with English abstract and machine translation)	08-2000	JAPAN		X
<i>JS</i>	44	JP 2000-235909 (with English abstract and machine translation)	08-2000	JAPAN		X
<i>JS</i>	45	JP 2002-175908 (with English abstract and machine translation)	06-2002	JAPAN		X
<i>JS</i>	46	JP 2002-212686 (with English abstract and machine translation)	07-2002	JAPAN		X
<i>JS</i>	47	JP 2002-239688 (with English abstract and machine translation)	08-2002	JAPAN		X
<i>JS</i>	48	JP 2002-80921 (with English abstract and machine translation)	03-2002	JAPAN		X
<i>JS</i>	49	JP 62-062503 (with English abstract)	03-1987	JAPAN		X
<i>JS</i>	50	JP 63-190138 (with English abstract)	08-1988	JAPAN		X
<i>JS</i>	51	JP 63-301505 (with English abstract)	12-1988	JAPAN		X
<i>JS</i>	52	JP 64-081301 (with English abstract)	03-1989	JAPAN		X
<i>JS</i>	53	KR 1998-10178	05-1998	KOREA		
<i>JS</i>	54	EP 0 197 712	10-1986	EPO		
<i>JS</i>	55	EP 0 302 395	02-1989	EPO		
<i>JS</i>	56	EP 1 158 545	11-2001	EPO		
<i>JS</i>	57	WO 01/68297	09-2001	WIPO		
<i>JS</i>	58	WO 00/52713	09-2000	WIPO		
<i>JS</i>	59	JP 61-140350	06-1988	JAPAN		
	60	WO 02/067276	08-2002	WIPO		
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Sheet **4** of **5**

Application Number	<b>10/642,324</b>
Filing Date	<b>August 18, 2003</b>
First Named Inventor	<b>Takeshi NISHIUCHI</b>
Art Unit	<b>1742</b>
Examiner Name	<b>J. Sheehan</b>
Attorney Docket Number	<b>60303.32</b>

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title Of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume- issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>JS</i>	61	L. Henderson Lewis et al., "Phase Composition and Magnetic Characteristics of Inert Gas-Atomized RE-Fe-B-Based Powders", IEEE Transactions on Magnetics, Vol. 31, No. 6, 11/1995, pp. 3641-3643.	
<i>JS</i>	62	M.J. Kramer et al., "A Generalized Solidification Model and Microstructural Verification for the Nd-Fe-B-Ti-C System Processed by Rapid Solidification", J. Appl. Phys. 81(8), 04/1997. pp. 4459-4461.	
<i>JS</i>	63	MISSELL et al., "RARE-EARTH MAGNETS AND THEIR APPLICATIONS," Proceedings of the 14 <sup>th</sup> International Workshop, 09/1996, pp. 28-37, Vol. 1, World Scientific, Singapore, New Jersey, London, Hong Kong.	
<i>JS</i>	64	YAO, J.M. et al, "Coercivity of Ti-modified ( $\alpha$ -Fe)-Nd <sub>2</sub> Fe <sub>14</sub> B Nanocrystalline Alloys", Journal of Applied Physics, November 15, 1994, pp. 7071-7073, Volume 76, No. 10, American Institute of Physics, Woodbury, New York, USA.	
<i>JS</i>	65	Z.S. Wronski, "Microstructure and Magnetic Properties of Low-Neodymium Nd-Fe-B-Si Magnets Produced from HP Gas Atomized Powder", J. Appl. Phys. 69(8), 04/1991, pp.5507-5509.	
<i>JS</i>	66	D.J. Branagan, et al., "A New Generation of Gas Atomized Powder with Improved Levels of Energy Product and Processability", IEEE Transactions of Magnetics, Vol. 32, No. 5, 09/1996, pp. 5097-5099.	
	67	CHANG et al., "High Performance...Nanocomposites", pp. 121-123, 01/1998, Applied Physics Letters, Vol. 72, No. 1.	
Examiner Signature	<i>John P Sheehan</i>		Date Considered <i>11/7/05</i>

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## NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	<del>68</del>	<del>Application No. 10/432,862. Filed May 20, 2003. "Nanocomposite magnet."</del>	
	<del>69</del>	<del>Application No. 10/745,834. Filed December 24, 2003. "Permanent magnet including multiple ferromagnetic phases and method for producing the magnet."</del>	
JS	70	Lewis L H et al, "COMPOSITIONAL CLUSTERING IN ND <sub>2</sub> FE <sub>14</sub> B MELT-SPUN RIBBONS" Journal of Applied Physics, American Institute of Physics. New York, US, vol. 87, no. 9, 1 May 2000, pp. 4735-4737.	
	<del>71</del>	<del>Application No. 09/886,390. Filed November 8, 2001. "Nanocomposite magnet and method for producing same." now U.S. Pat. 6,790,290</del>	
JS	72	Office Action issued June 17, 2005. Application No. 10/432,862. "Nanocomposite Magnet."	
	<del>73</del>	<del>Application No. 09/455,469. Filed December 6, 1999. "Nanocomposite magnet material and method for producing nanocomposite magnet."</del>	
	<del>74</del>	<del>Application No. 10/381,005. Filed March 20, 2003. "Iron-based rare earth alloy nanocomposite magnet and method for producing the same."</del>	
JS	75	Office Action issued March 28, 2005. Application No. 10/381,005. "Iron-based rare earth alloy nanocomposite magnet and method for producing the same."	
Examiner Signature	John P. Sheehan 11/7/05		

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First Named Inventor

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<i>JS</i>	1	5,666,635	09/1997	Kaneko et al	
<i>JS</i>	2	6,332,933	12/2001	Ma et al.	
<i>JS</i>	3	6,352,599	03/2002	Chang et al.	
<i>JS</i>	4	6,280,536	08/2001	Inoue et al.	
<i>JS</i>	5	4,756,775	07/1988	Groat	
<i>JS</i>	6	4,770,723	09/1988	Sagawa et al.	
<i>JS</i>	7	4,836,868	06/1989	Yajima et al.	
<i>JS</i>	8	4,935,074	06/1990	De Mooij et al.	
<i>JS</i>	9	5,022,939	06/1991	Yajima et al.	
<i>JS</i>	10	5,049,208	09/1991	Yajima et al.	
<i>JS</i>	11	5,209,789	05/1993	Yoneyama et al.	
<i>JS</i>	12	5,725,792	03/1998	Panchanathan	
<i>JS</i>	13	5,905,424	05/1999	Panchanathan	
<i>JS</i>	14	6,022,424	02/2000	Sellers et al.	
<i>JS</i>	15	6,172,589	01/2001	Fujita et al.	
<i>JS</i>	16	6,183,571	02/2001	Inoue et al.	
<i>JS</i>	17	6,183,572	02/2001	Panchanathan et al.	
<i>JS</i>	18	6,302,972	10/2001	Hirosawa et al.	

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<i>JS</i>	19	EP 06-32471	01/1995	JAPAN EP	<i>JS 11-4-05</i>	X
<i>JS</i>	20	JP 2000-079449	03/2000	JAPAN		X
<i>JS</i>	21	JP 61-140350	06/1986	JAPAN		X
<i>JS</i>	22	JP 2000-079451	3/2000	JAPAN		X
<i>JS</i>	23	JP 8-167515	06/1996	JAPAN		X
<i>JS</i>	24	JP 1-100242	04/1989	JAPAN		X

Examiner  
Signature*John P. Shub*Date  
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JL	25	WO 99/21 196	04/1999	WIPO		X
JL	26	JP 59-046008	03/1984	JAPAN		X
JL	27	JP 60-009852	01/1985	JAPAN		X
JL	28	JP 8-162312	<del>08/1990</del> 6/1986	JAPAN	JL 11-4-05	X
JL	29	JP 11-071646	06/1996	JAPAN		X
JL	30	JP 64-703	01/1989	JAPAN		X
JL	31	JP 64-7501	01/1989	JAPAN		X
JL	32	JP 64-7502	01/1989	JAPAN		X
JL	33	JP 3-260018	11/1991	JAPAN		X
JL	34	JP 3-261104	11/1991	JAPAN		X
JL	35	JP 7-122412	05/1995	JAPAN		X
JL	36	JP 11-323509	11/1999	JAPAN		X
JL	37	JP 2-298003	12/1990	JAPAN		X
JL	38	JP 9-155507	06/1997	JAPAN		X
JL	39	WO 00/03403	01/2000	PCT		
JL	40	WO 00/45397	08/2000	PCT		
JL	41	WO 00/5 2713	09/2000	PCT	JL 11-4-05	
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JL	43	DE 197 39 959	03/1998	GERMANY		
JL	44	EP 1 061 532	12/2000	EUROPE		

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **3** of **5**

## Complete if Known

Application Number	
Filing Date	
First Named Inventor	<b>Takeshi NISHIUCHI</b>
Art Unit	
Examiner Name	
Attorney Docket Number	<b>60303.32</b>

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>JS</i>	45	R. Coehoorn, et al., "Novel Permanent Magnetic Materials Made by Rapid Quenching", Journal de Physique, C8, 12/1988, pp.669-670.	
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<i>JS</i>	47	W.C. Chang, et al., Magnetic and Microstructure Studies of boron-enriched (Nd <sub>0.95</sub> La <sub>0.05</sub> ) <sub>11</sub> Fe <sub>76.5-x</sub> Co <sub>x</sub> Ti <sub>2</sub> B <sub>10.5</sub> (x=0-15) Melt-Spun Ribbons, IEEE, Transactions on Magnetics, Vol.36, No.5, September 2000, pp.312-3314.	
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Examiner Signature	<i>John P. Shuck</i>	Date Considered	<i>11/7/05</i>
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Sheet	4	of	5
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Application Number

Filing Date

**First Named Inventor**

**Takeshi NISHIUCHI**

## Art Unit

Examiner Name \_\_\_\_\_

Attorney Docket Number	60303.32
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**First Named Inventor**

**Takeshi NISHIUCHI**

**Art Unit**

**Examiner Name**

Attorney Docket Number	60303.32
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